Quality Control

Work Orde				*109	9419*						Page 1
Item ID: Revision ID:	D3031-1			Accept	*N900	040	100)* s	etup Star	i V	S1*
	Loop		12						Stop	' *N	S2*
Start Date:	12/05/13	Start Qty: 4.00	*4*		Cust Item 1	ID:					
Required Date:	12/05/13	Req'd Qty: 4.00	*4*		Customer:						
Reference:									~.		
Approvals:	Process P	lan: _M 🗢	Date: 13-11-25	Tooling:	D	ate:		R	Run Star	17	R1*
	QC:		Date:	SPC (Y/N):	D	ate:			Stoj	*N	R2*
Sequence ID/ Work Center II)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Re	evision Nbr		-							
D3031	Re	ev B									
100			V	0.00				ک م)	. ,	_
100		PURCHASING		. 0.00				<u>(X</u>	13.	P1/26	
Purchasing Purchasing				-Thomas Hardware P/N P/N 6411G-Descriptio	n: Footman						
110		Receive & Inspect for D	amage & Mat'l Certs	0.00					1.		
110 Packaging		Memo		0.00				10	13/4/2	7_(1	<u>~)</u>
Packaging		Ensure Mat	erial Release Note is attached	d					•		
120 *120* QC		QC6- Inspect dimension	s to drawing	0.00 PAS 0.00 PAS 0.00 PAS	•			12			

DQA: Date:						WORK ORDER NON-CONFORMANCE / UPDATE									
QA Closed:			Date:			WORK ORDER NON-	-CC	JNFUI	RIVIANCE / U		W	ork Order up	date only		AEROSPACE
Mork Orda						DISPOSITION				AGAINST	DE	PARTMENT,	PROCESS		
Work Orde	er: -	· · · · · · · · · · · · · · · · · · ·				Rework			Skid-tube	Crosstube]	Water Jet	\neg	Engineering
Part N	ıo					Scrap		,	Machining	Small Fab		Pro	d. Eng. Coor.	\dashv	Quality
raich	٠٠.					Use-as-is	ı		noforming	Finishing		4	e/Packaging	\exists	Other
NCR N	ю.					Suspected Unapproved			Large Fab	Composite			Supplier		
Root					Desci	ription of work order update	Ī	nitial	Ac	tion		Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Desc	ription		Date	Verification	1	QC Inspector
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Doc/Data															
Equip/Tooling	\dashv														
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Material	_	4													
Operator															
Offset/Setup															
Process															
Supplier			ł	ļ											
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Transport			l I				l								
Unapproved					ļ				<u> </u>						
							FA	ULT CA	regory						•
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		Bending				Bend	L	4 ·	Program		_	Outside Dim		\neg	Pressure/Forced
		Centre No	ot Concer	ntric		BOM/Route	ᆫ	Grain			_	Over/Under		-	Set-up
		Cracks				Broken/Damage/Defect		Hardwa	ire			Part Incorred	cí J	_	Temperature/Cure
		Crimp/Kir	rk/Ripple	/Wave		Burrs	<u> </u>	Inspect	ion Incomplete/U	Inqualified	<u> </u>	Part Lost/Mi			Weld
		Cuffs			L	Contamination	<u> </u>	₹	tions Incomplete/		_	Part Moved			Wrong Stock Pulled
Crushing Countersink				Countersink		Misalig	gned/off center			Positioned V					
Heat Treat Cut Too Short				Cut Too Short	L	Mislabe	eled			Power Loss/	Surge		Other		
		Inspection		Tube		Drawing		Misrea							
		Marks/Ch				Drill Holes	<u></u>	Off-set							
		Turning S	equence			Finish		Out of	Calibration						
Wave/Twist in Tube					Fit/Function		Out of	Sequence							

Work	Order	ID	109419
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109419

Page 2

November-21-1.	3 2:22:59 P	PM			 							
Item ID: Revision ID:	D3031-1		**************************************	Accept	*N90004	010 0)*	Setup	Start	*N:	S1*	
Item Name:	Loop						i i		Stop	*N:	S2*	
Start Date:	12/05/13	Start Qty: 4.00	*4*		Cust Item ID:							
Required Date:	12/05/13	Req'd Qty: 4.00	*4*		Customer:							
Reference:			-									
Approvals:	Process P	lan:	Date:	Tooling:	Date:			Run	Start	*N	R1*	
	QC:		Date:	SPC (Y/N):	Date:				Stop	*N	R2*	
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID Too	l# Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp	
*130 *130*		Grey Sandtex(Ref:4.3.5.		0.00			12	þ	13	3-12-3		AS
Powder Coating		Memo STANTTIA	IE: <i>10:2</i> 0 _FINISH TIME:	0.00 OVEN TEMPERATURE	:						9	34 989
140		QC3- Inspect Part Finish	1	DAS 0.00 27 \ 9-89			10					
140 QC Quality Control		Memo		0.00 12/12	103		12					-
150		Identify as per dwg & St	ock Location:	0.00				, ,		DAS 32 9-89		
150 Packaging Packaging		Memo	Study	0.00		/2	2 13	12/0	3	9-89		-

DQA:			Date:			WORK ORDER NON	~	NEO	DA A BIOT / 111	DD ATE					RT
QA Closed:			Date:			WORK ORDER NON-	-CC	DNFOI	RMANCE / U		Wo	ork Order up	date only	AEROS	PACE
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Work Orde	er:					DISPOSITION				-	JE1	PARTIVIENT	_	_	
Part N	l۵					Rework Scrap			Skid-tube Machining	Crosstube Small Fab		Pro	Water Jet d. Eng. Coor.	Engineering Quality	
· uiti	•••		*****			Use-as-is			noforming	Finishing			e/Packaging	Other	-
NCR N	10.					Suspected Unapproved			Large Fab	Composite			Supplier		
Root					Desc	ription of work order update		nitial	Act	ion		Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descr	iption		Date	Verification	QC Inspec	ctor
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Material															
Operator	\dashv														
Offset/Setup	-								1			į	-		
Process	\dashv								i.						
Supplier Training															
Transport			į												
Unapproved	П]							;			
- парріотта	اــــــا		L	<u> </u>	<u> </u>		FAI	ULT CA	TEGORY			1			
Landi	ng G	ear				General									
	_	Bending				Bend		Folio/F	Program	Į		Outside Dim	ensions	Pressure/Force	ed
		Centre No	ot Concer	ntric		BOM/Route		Grain				Over/Under	tolerance	Set-up	
		Cracks				Broken/Damage/Defect		Hardwa	are			Part Incorre	ci [Temperature/	Cure
		Crimp/Kir	nk/Ripple	/Wave		Burrs		Inspect	ion Incomplete/U	nqualified		Part Lost/Mi	ssing	Weld	
		Cuffs				Contamination		Instruc	tions Incomplete/l	Jnclear		Part Moved		Wrong Stock F	Pulled
	—			Countersink		Misali	gned/off center			Positioned V	Vrong	_			
		Heat Trea	it			Cut Too Short		Mislabe	eled			Power Loss/	Surge	Other	
Inspection Strip in Tube Drawing				Drawing	Misread										
	Marks/Chatter Drill Holes				Drill Holes		Off-set								
		Turning S	equence			Finish	Out of Calibration								
		Wave/Tw		Fit/Function		Out of	Sequence								

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Quality Control

Work Orde								Page 3					
Revision ID:	D3031-1 Loop 12/05/13	Start Qty: 4.00	*4*	Accept	*N900		100)*	Setup	Start Stop	ı Vı	S1* S2*	-
Required Date:		Req'd Qty: 4.00	4 * Δ *		Customer:	υ.							
Reference:					Customer.				-	C44			
Approvals:	Process P	lan:	Date:	Tooling:	D	ate:			Run	Start	17	R1*	
	QC:		Date:	SPC (Y/N):	D	ate:				Stop	*N	R2*	
Sequence ID/ Work Center II)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Re Qt	_	Reject Number	Insp. Stamp	_
160		QC21- Final Inspection	Work Order Release	0.00					10	3/1-	2/4	1	
160		Мето		0.00					- Ľ	110	~/7_	<i>(</i>)—	

DQA:			Date:											
						WORK ORDER NON-	-CC	ONFO	RMANCE / UP					AEROSPACE
QA Closed:			Date:								Wc	rk Order up	date only	
Work Orde	ır.					DISPOSITION				AGAINST	DEI	PARTMENT	PROCESS	
WOIR Olde	-					Rework			Skid-tube	Crosstube	\neg		Water Jet	Engineering
Part N	lo.					Scrap			Machining	Small Fab		Pro	d. Eng. Coor.	Quality
	-					Use-as-is			noforming	Finishing			e/Packaging	Other
NCR N	lo.				_	Suspected Unapproved			Large Fab	Composite			Supplier]
Root					Desci	ription of work order update		nitial	Acti	on		Sign &		
Cause	Ì	Date	Step	Qty		or non-conformance	l	ief Eng	Descri			Date	Verification	QC Inspector
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		Bending			_	Bend	<u> </u>	1	Program			Outside Dim	—	Pressure/Forced
		Centre No	ot Concer	ntric	<u> </u>	BOM/Route	\vdash	Grain				Over/Under		Set-up
	\vdash	Cracks			-	Broken/Damage/Defect	\vdash	Hardwa		11.61		Part Incorred	—	Temperature/Cure
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	\vdash	Inspectio	-	ıupe	-	Drawing	\vdash	Misrea Off-set						
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		Turning S Wave/Tw				Fit/Function		4	Sequence					
J	ı	wave/iw	vist in Tur)e		FILTEURICHOIT		Jour or	sequence					

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

* Z.,*

Picklist Print

November-21-13 2:22:58 PM

Work Order ID:

109419

Parent Item:

D3031-1

Parent Item Name:

Loop

Start Date: 12/05/13

Required Date: 12/05/13

Page 1

Start Qty: 4.00

Required Qty: 4.00

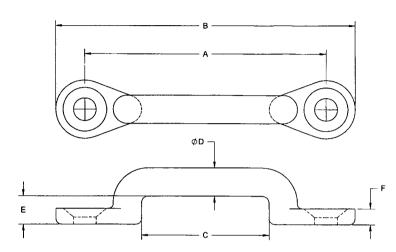
Comments:

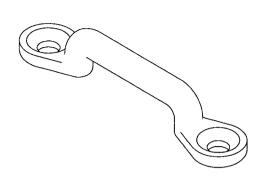
IPP A01.05.30New IssueEC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
6411G		Purchased	No			100	Each	0.0000	1	4.	- <i>I</i>	721	10
LOOP		Purchased	NO			100	Eacn	0.0000	1 		2_/	93/1	/5 8

DQA:			Date:										
QA Closed:			Date:			WORK ORDER NON-	-CC	ONFOI	RMANCE / UPDATE	W	ork Order up	date only	AEROSPĀCĒ
QA CIOSCU.						DISDOSITION			000				
Work Orde	er:					DISPOSITION			AGAI	ם וכמו	PARTMENT/	PROCESS	
						Rework			Skid-tube Crosst	· -	ļ	Water Jet	Engineering
Part N	10.					Scrap			Machining Small		4	d. Eng. Coor.	Quality
NCR N	۱٥٠ ِ					Use-as-is Suspected Unapproved		Thern	noforming Finis Large Fab Compo	- *-	Rec/Stor	e/Packaging Supplier	Other
Root					Desci	ription of work order update	ı	nitial	Action		Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Design						•							
Doc/Data													
Equip/Tooling							ļ						
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Material													
Operator		i											
Offset/Setup													
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Landi	ng (1			_	General	_	1_' /-			1		٦_ ،
	<u> </u>	Bending			\vdash	Bend	<u> </u>	i .	Program	<u> </u>	Outside Dim	 	Pressure/Forced
		Centre No	ot Concer	ntric	<u> </u>	BOM/Route	\vdash	Grain		-	Over/Under	 	Set-up
	<u> </u>	Cracks			_	Broken/Damage/Defect	\vdash	Hardwa			Part Incorre	 	Temperature/Cure
	<u> </u>	Crimp/Kir	nk/Ripple	/Wave	<u> </u>	Burrs	<u> </u>	4 '	ion Incomplete/Unqualified	ļ	Part Lost/Mi	issing	Weld
	<u> </u>	Cuffs			<u> </u>	Contamination	\vdash	4	tions Incomplete/Unclear	-	Part Moved	L	Wrong Stock Pulled
	_	Crushing			<u> </u>	Countersink	\vdash	4	gned/off center	<u> </u>	Positioned V		
	L	Heat Trea			\vdash	Cut Too Short	\vdash	Mislab			Power Loss/	Surge	Other
	<u></u>	Inspectio	· ·	Tube	_	Drawing	-	Misrea					
	<u> </u>	Marks/Ch				Drill Holes	\vdash	Off-set			-		
	<u></u>	Turning S			<u> </u>	Finish	<u></u>	-	Calibration				
	1	Wave/Tw	ist in Tul	e		Fit/Function		Out of	Sequence				

SPECIFICATION CONTROL DRAWING





D3031-X LOOP

	DART P/N	Α	В	С	ØD	E	F	FINISH	WEIGHT	SUPPLIER	SUPPLIER P/N
	D0004.4		0.04	2.00				POWDER COAT GREY (4.3.5.6)		THOMAS HARDWARE	TH73
	D3031-1	3.13	3.64	2.09	0.25	0.31	0.16	POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3	0.06 LB\$	AUSTIN HARDWARE	6411G
<u>B</u>	D3031-3	2.13	2.64	1.12	0.25	0.25	0.14	NONE	0.04 LBS	AUSTIN HARDWARE	AH 6411-B

13-11-25

С

В	ADD D3	1031-3 (B8-1); L ARO	IPDATE FORMAT TO CURRENT	PH	09.04.14		
Α	NEWIS	SUE		CP	01.05.18		
REV.			DESCRIPTION	BY	DATE		
DESIG	1	CP	DART AEROSE	ACEL	TD		
DRAW	1	PH	HAWKESBURY, ONTA				
CHECK	ED.	4	DRAWING NO.		REV. B		
MFG. A	PPR.	N/A	7 D3031		SHEET 1 OF 1		
APPRO	VED	TUN	TITLE	-	SCALE		
DE APP	R.	-11	LOOP NTS				
DATE	09.0)4.14	COPYRIGHT © 2001 BY DAR THE DOCUMENT IS PRIVATE AND CONTREMTUL AND IS SUP- HOLT TO BE USED FOR ANY PURPOSE OR COPYED OR COMME	LED ON THE EXPRES TO YANG TO STADY	IS CONSTRON THAT IT IS		

D

NOTES:
1) MATERIAL: N/A
2) FINISH: SEE TABLE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: NONE
7) WEIGHT: SEE TABLE



Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K6A 1K7

Tel: 613 632 9577 Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO22193

Purchase Order Date 11/26/2013 PO Print Date 11/26/2013

Page Number 1 of 1

Order From:

ROYAL BANK VISA

HAWKESBURY, ONT X

CAN

VU-ROY003

DART AEROSPACE LTD Ship To:

1270 ABERDEEN

HAWKESBURY, ON K6A 1K7

CANADA

Contact Name

Vendor Phone

Ship To Contact Ship To Phone

Ship Via: Ship Acct: FedEx Pl collect

Customer Tax # Terms

Customer POID

Currency FOB

Buyer

Chantal Lavoie

10127-2607

COD USD

Destination-Collect

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
/	Line Comments Delivery Comments		Promise Date	 12.00	\$1.60	\$19.18
	6411G	LOOP	11/29/2013 Yes 11/29/2013	Each		
	AS PER DWG D3031 REV. B B109419					

Line Total:

\$19.18

PO Total:

\$19.18

PO Instructions: AUSTIN HARDWARE

Linda Lacelle

visa; 4514 0310 0959 2060

exp:11/17 cid:134

Note: Pricing listed above is as per contract agreement between Dart Aerospace and the respective manufacturer.

No substitution or deviation without consent.

Certificate of Conformity or Material Certification required YES NO

Order Shipped From:

Seding 1001Rockland St. Heading, PA 19604 13th Phone: (800) 634-4293



Pack ID 105294	Order Number 581253
Cust ID	PO Number
10235	22193
FOB	Page
SHIPPING POINT	1 of 1

Packing Slip

Sold To: Chantal Lavoie
Dart Aerospace Ltd
1270 Aberdeen St
Hawksbury ON

Canada

Ship To:

Dart Aerospace Ltd 1270 Aberdeen St Main Finished Goods Location Hawksbury ON K6A 1K7 Canada

Order Date		Ship Date	Ship Via / Account	Ordered Entered By				Terms
11/26/2013		11/27/2013	Fedex Ground / 151793240	ELarson				Credit Card
Line / Austin Part# [Descrip	Description Customer Part Description		Order Qty		Lot Number/ Expiration Date	(#) Total Net Wt
Rol 1/1	AH 6411-G ZI		MAN LOOP	EA	12.00	12.00		0.78
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<u>Certificate of Conformance:</u> This is to certify that the above items were supplied in accordance with the description and as illustrated in the catalog

FodEx ONLY:

Employee#

Project#

GL Acct Code 0

Cost Center

Non-Rev#

Joe E. Lenart

Operations Manager